INVENTOR: McBride et al   attorney docket: CARDIOBEAT-1
TITLE: MEDICAL TESTING AND METHOD

EXHIBIT 3

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GMcBride/cardiobeat.com

From: SoftQue [royce@softque.com]
Sent: Monday, August 23, 1999 10:03
To: George McBride
Subject: FW:

George I thought you might want to see this. rlr -----Original Message-----
From: Warren Williamson [mailto:warren@wlwill.com]
Sent: Tuesday, August 17, 1999 1:45 PM
To: royce@Softque.com
Subject:

Bob:
Following are my thoughts and observations about the next generation Thorasic Impedance Measurement
System: The present Thorasic Impedance Measurement System design can be reduced greatly in size, cost,
and power consumption by incorporating newer microprocessor technology which is now available. In
particular, Digital Signal Processing (DSP) techniques can be used to perform the filtering and other signal
processing functions which are implemented in the current design as individual amplifier and filter circuits.
There are numerous DSP processors available now which are capable of performing these functions. In
addition, performance will be improved with the use of these techniques. Much of the size and cost of the
present design relates to the connectors, switches, display, and other interface components. There is plenty
of opportunity for reduction in these areas. Another step which can be taken if necessary to futher reduce size
is to use Surface Mount Technology. Even if not necessary for size reduction, it may be the best choice as
this is a more modern assembly method and is becoming very widespread. The first step in the redesign
process is to review the available microprocessor and DSP technology and select the appropriate processor
based on cost, power consumption, external components required, and other design consideratons. We also
need to carefully specify the product functionality with the features necessary for the way we intend to apply it.
Then we can do the circuit and firmware design and produce circuit boards and prototypes. I'm looking forward
to working with you again on this project. Warren

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